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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,911	09/20/2003	Robert W. Cameron	P2118	7050

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TODD N. HATHAWAY
119 N. COMMERCIAL ST. #620
BELLINGHAM, WA 98225

EXAMINER

FERGUSON, MICHAEL P

ART UNIT	PAPER NUMBER
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3679

DATE MAILED: 03/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/665,911

Applicant(s)

CAMERON, ROBERT W.

Examiner

Michael P. Ferguson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Objections

1. Claims 1, 11, 12, 13 and 19 are objected to because of the following informalities:

Claim 1 (line 5) recites "having broad". It should recite --having a broad--.

Claim 11 (line 1) recites "each of said flange portion". It should recite --each said flange portion--.

Claim 12 (line 1) recites "said at least one opening". It should recite --said opening--.

Claim 12 (line 3) recites "in at least one of said flange portions". It should recite --in said flange portion--.

Claim 13 (line 1) recites "of claim 9, wherein said at least one opening". It should recite --of claim 10, wherein said opening--.

Claim 13 (line 3) recites "on at least one of said flange portions". It should recite --on said flange portion--.

Claim 19 (line 1) recites "of claim 16". It should recite --of claim 18--.

For the purpose of examining the application, it is assumed that appropriate correction has been made.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Trub (US 1,825,029).

As to claim 1, Trub discloses a connector assembly capable of use with a tarp, the connector assembly comprising:

male and female connector members 1,2,10,11, each the connector member comprising:

a base portion having a broad, generally flat bearing face capable of engaging material of a tarp;

one of the connector members comprising:

a handle portion 2 extending from the base portion opposite the bearing face for being gripped and rotated by the fingers of a hand and having an opening 2a capable of attachment of a load (screw driver) thereto;

the male connector 2,11 member further comprising:

a threaded screw portion extending normal to the bearing face thereof; the screw portion having a tapered, sharply pointed tip capable of piercing material of a tarp; and

the female connector 1,10 member further comprising:

a threaded socket portion extending normal to the bearing face thereof for receiving the screw portion of the male connector member in threaded engagement therewith (Figures 4 and 6).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trub in view of McNatt (US 1,347,642).

As to claims 2, 3 and 6, Trub discloses a connector assembly wherein each of the bearing faces comprises an annular projection **10a** and groove **12a** (capable of frictionally engaging material of a tarp so as to prevent accidental loosening of the connector members) instead of a plurality of raised protuberances; wherein the raised protuberances have substantially rounded contours so as to avoid damaging material of a tarp that is engaged thereby; and wherein the raised protuberances are formed around outer perimeters of the clamping rings on the male and female connector members (Figure 6).

McNatt teaches a connector assembly wherein bearing faces comprises a plurality of raised protuberances capable of frictionally engaging material of a tarp so as to prevent accidental loosening of connector members **3,4**; wherein the raised protuberances have substantially rounded contours so as to avoid damaging material of a tarp that is engaged thereby; and wherein the raised protuberances are formed around outer perimeters of the clamping rings on the male and female connector members (Figure 2). Inasmuch as the references

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disclose an annular projection and groove and a plurality of raised protuberances as art recognized equivalents, it would have been obvious to one of ordinary skill in the exercise art to substitute one for the other. In re Fout, 675 F.2d 297, 301, 213 USPQ 532, 536 (CCPA 1982).

As to claim 4, McNatt teaches a connector assembly wherein the raised protuberances comprise a plurality of circular protuberances arranged radially (Figure 2).

Trub in view of McNatt fails to disclose a connector assembly wherein the raised protuberances comprise a plurality of elongate, substantially oval protuberances.

The applicant is reminded that a change in the shape of a prior art device is a design consideration within the skill of the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a connector assembly as disclosed by Trub in view of McNatt to have elongate, substantially oval protuberances as such practice is a design consideration within the skill of the art.

As to claim 5, Trub discloses a connector assembly wherein the base portions of the male **2,11** and female **1,10** connector members each comprise a raised, substantially flat-surfaced clamping ring formed annularly around the screw and socket portions, respectively, capable of clamping a tarp about an opening formed by the screw portions so as to prevent tears from propagating therefrom (Figures 4 and 6).

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As to claim 7, Trub discloses a connector assembly wherein each bearing face is substantially circular so as to evenly distribute loads into material of a tarp that is engaged thereby.

As to claim 8, Trub discloses a connector assembly wherein each base portion comprises a radiused rim extending about a perimeter of the circular bearing face capable of progressively engaging material of a tarp so as to avoid damage thereto (Figure 4).

As to claim 9, Trub discloses a connector assembly wherein each radiused rim comprises a rounded lip having smoothly contoured radius that extends away from a plane of the flat bearing face through an arc of about 90 degrees or greater (Figure 4).

As to claim 10, Trub discloses a connector assembly wherein each handle portion 2 comprises a flange portion extending generally normal to the base portion capable of being gripped between a thumb and forefinger (Figure 4 and 6).

As to claim 11, Trub discloses a connector assembly wherein each flange portion comprises a generally semicircular flange having first and second sides that flare concavely towards the base portion of the connector member.

As to claim 12, Trub discloses a connector assembly wherein the opening 2a capable of attachment of a load (screw driver) comprises a bore formed in the flange portion (Figure 4).

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As to claim 13, Trub discloses a connector assembly wherein the opening **2a** capable of attachment of a load (screw driver) comprises a hook portion mounted on the flange portion (Figure 4).

As to claims 14 and 19, Trub discloses a connector assembly capable of use with a tarp, the connector assembly comprising:

male **2,11** and female **1,10** connector members, each connector member being unitarily molded and comprising:

a base portion comprising:

a broad, generally flat, substantially circular bearing face capable of engaging material of a tarp;

a plurality of annular projections **10a** and grooves **12a** formed on the bearing surface capable of frictionally engaging material of a tarp so as to prevent accidental loosening of the connector members; and

a smoothly radiused lip extending around a perimeter of the circular bearing face capable of progressively engaging material of a tarp so as to avoid damage thereto, the radiused lip extending away from a plane of the bearing surface through an arc of about 90 degrees or greater;

one of the connector members comprising:

a handle portion **2** extending from the base portion opposite the bearing face, the handle portion comprising:

a flange portion extending generally normal to the base portion and having first and second concavely flared sides capable of being gripped between a thumb and forefinger, the sides spreading apart toward the base portion so as to

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form a thickened area of the flange portion where the flange portion is joined to the base portion; and

an opening **2a** capable of attachment of a load (screwdriver) to the flange portion;

the male connector member **2,11** comprising:

a threaded screw portion extending normal to the bearing face thereof, the screw portion having a tapered, sharply pointed tip capable of piercing material of a tarp; and

the female connector member **1,10** comprising:

a threaded socket portion extending normal to the bearing face thereof for receiving the screw portion of the male connector member in threaded engagement therewith (Figures 4 and 6).

Trub discloses a connector assembly comprising a plurality of annular projections **10a** and grooves **12a** instead of a plurality of raised, generally oval protuberances, the protuberances being arranged radially proximate a perimeter of the circular bearing face so that the long axes thereof are disposed generally perpendicular to a direction of rotation of the bearing face, the protuberances further having substantially rounded contours so as to avoid damaging material of a tarp that is engaged thereby, wherein the raised protuberances are formed along outer perimeters of the clamping rings on the male and female connector members.

McNatt teaches a connector assembly comprising a plurality of raised, circular protuberances, the protuberances being arranged radially proximate a

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perimeter of a circular bearing face, the protuberances further having substantially rounded contours so as to avoid damaging material of a tarp that is engaged thereby, wherein the raised protuberances are formed along outer perimeters of clamping rings on the male and female connector members 3,4 (Figure 2). Inasmuch as the references disclose an annular projection and groove and a plurality of raised protuberances as art recognized equivalents, it would have been obvious to one of ordinary skill in the exercise art to substitute one for the other. In re Fout, 675 F.2d 297, 301, 213 USPQ 532, 536 (CCPA 1982).

Trub in view of McNatt fails to disclose a connector assembly wherein the raised protuberances comprise a plurality of generally oval protuberances, the protuberances being arranged so that the long axes thereof are disposed generally perpendicularly to a direction of rotation of the bearing face.

The applicant is reminded that a change in the shape of a prior art device is a design consideration within the skill of the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a connector assembly as disclosed by Trub in view of McNatt to have generally oval protuberances as such practice is a design consideration within the skill of the art.

As to claim 15, Trub discloses a connector assembly wherein the radiused lip extends away from the plane of the bearing surface through an arc of about 180 degrees or greater.

As to claim 16, Trub discloses a connector assembly wherein the screw portion of the male connector member **11** comprises a tapered thread capable of gradually spreading material of a tarp so as to minimize damage to the material as the material is penetrated by the screw portion (Figure 6).

As to claim 17, Trub discloses a connector assembly wherein the screw portion of the male connector member **11** is a two-stage screw comprising:

- a tapered thread portion proximate the pointed tip; and

- a straight-sided thread portion proximate the base portion of the male connector member, the socket portion of the female connector member **10** having a cooperating straight-sided thread portion formed therein (Figure 6).

As to claim 18, Trub discloses a connector assembly wherein the base portions of the male **2,11** and female **1,10** connector members each comprise a raised, substantially flat-surfaced clamping ring formed annularly around the screw and socket portions, respectively, capable of clamping a tarp about an opening formed by the screw portions so as to prevent tears from propagating therefrom (Figures 4 and 6).

As to claim 20, Trub discloses a connector assembly wherein each opening **2a** capable of attachment of a load (screwdriver) comprises a bore formed through the flange portion (Figure 4).

As to claim 21, Trub discloses a connector assembly wherein each opening **2a** capable of attachment of a load (screwdriver) comprises a hook portion **4** mounted on the flange portion (Figure 4).

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As to claim 22, Trub fails to disclose a connector assembly wherein the male and female connector members are each formed unitarily of plastic.

The applicant is reminded that the selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a connector assembly as disclosed by Trub to have plastic male and female connector members as such practice is a design consideration within the skill of the art. The applicant is reminded that patentability determination of product-by-process claims is based on the product itself, even though such claims are limited and defined by the process. See MPEP § 2113. "The patentability of a product does not depend on its method of production." In re Thorpe, 777 F.2d 695,698,USPQ 964,966 (Fed.Cir.1985).

Conclusion

The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure. The following patents show the state of the art with respect to connector assemblies:

Lancaster (US 2,174,521), Nealy (US 4,267,615), Velasquez et al. (US 5,490,309) and Gillis (US 3,986,519) are cited for pertaining to assemblies comprising male and female connector members.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Ferguson whose telephone

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number is (703)308-8591. The examiner can normally be reached on M-F (7:30-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (703)308-2686. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-

free).


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DANIEL P. STODOLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600